Market Advisory Committee
California Air Resources Board
Implementation of AB32 Greenhouse Gas Regulations
Comments on Design Criteria
Morgan Stanley Capital Group Inc.
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Morgan Stanley Capital Group Inc (MSCG) is very interested in the design of the greenhouse gas regulations in California. In particular we have concerns over the proposals to implement a "load-based" cap for the electricity sector. For that reason, we are submitting these comments regarding some suggested design criteria that we hope the Market Advisory Committee will consider in its deliberations on the recommended design for AB32 implementation. We will have additional and more detailed comments once the draft recommendation is released in May.

MSCG believes that these criteria, among others, should be threshold to the design:

- The system should be designed so as to meet the societal goal in a manner that minimizes total cost to society.
- The system should be designed so as to minimize disruption to commerce.
- The system used should have the ability to actually change the dispatch to ensure that "greener" units are actually used, as opposed to just contracted.

Both of the first two criteria can reasonably be considered to be subsumed within the criteria of "cost-effectiveness", which the Committee has already explicitly adopted. We wanted to elaborate, however, on concerns we have with regard to the likelihood that a load-based regulatory regime in the electricity sector would violate both of these principles.

A load-based system has, as an inherent need, the ability to assign specific emissions sources to specific entities that have a compliance obligation. However, in the electricity sector, doing so violates both the laws of physics and standard industry commercial practices. First, it is common practice today for electricity suppliers to agree to deliver a specified amount of power to a customer at a specified location at a specified time at a specified price. The ultimate source of this power is commonly not specified. While some portion of the power might be contracted to come from an identified source, it is more likely that most will be sourced from a pooled source, such as a "hub". Furthermore, the ability to wait until the last possible moment to finalize the source ensures that the optimum mix of resources is dispatched, serving the load with the most efficient mix of sources available and avoiding squandering of society's resources. Theses types of contracts are often referred to in California as "unspecified resource" contracts. A load-based enforcement regimen is likely to force the industry away from its

long-standing practice into a much more rigid and wasteful "unit-specific" contracting model. This model will not only reduce efficiency and add costs for consumers, but will also reduce system reliability, as well. This is because so-called "unspecified resource" contracts, which would become impractical at best under a load-based regimen, have a proven track record of superior performance, as opposed to any type of unit-specific contract, which necessarily will be impaired by normal periods of both scheduled and unscheduled outage.

Second, load-based compliance would be an administrative fiction, even positing a method to "track" all power generated from source to sink. This is because the physics of electric power resembles a swimming pool with a group of people at one end (suppliers) dumping in buckets of water, and people at the other end (end users) dipping out buckets of water for use. It is simply not possible to identify the source bucket for the water that is withdrawn by a "user". Regardless of the wording, a contract for power delivery, absent a dedicated radial line, is really just a contract to inject power into the system equivalent to the customer's requirements, at a location that allows the system, in aggregate, to reliably supply all load. Any "tracking" system that is devised would be an administrative fiction, because a "tracking" system can only track contracting arrangements, not physical power flows. This is true even if all supply contracts identify specific generation units as sources.

Third, a load-base system runs a significant risk of simply changing the power contracting practice without changing the actual dispatch of generation, and hence not providing any reduction in greenhouse gas emissions. With California being a GHG enforcement "island", it is likely that parties will simply "shuffle" contracts so that "green" generation contracts with California load and "dirty" generation contracts with entities outside the state. Thus, one of the arguments often used in support of load-based regulation, the elimination of "leakage", is likely to turn out to be a red herring .

Theoretically, MSCG believes that a load-based regulatory framework meeting the above criteria is possible (although it would be, at best, a "Rube Goldberg" construct). In order to do so, it would need to meter the following criteria:

1) The GHG-related cost of all generation units would have to be known to the system operator and considered in the dispatch decision.
2) It would have to be recognized that the responsibility to meet the requirements rests with the Load, but that actual compliance occurs at the generation source.
3) It would have to be accepted that some "leakage" is inevitable.

While MSCG believes that a load-based system is theoretically possible, if consistent with the principle above, we have not yet encountered a specific proposal that meets those criteria.

We appreciate the opportunity to express our concerns and views to the Market Advisory Committee. Our team includes people with unique experiences in both commercial emissions trading and the governmental administration of emissions trading regulations. If the Committee is interested in follow-up questions or discussions, we would be delighted to arrange for our experts to be available to the members of the Committee for a more in-depth exchange on the issues.

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